

of genes derived from ecologically as well as morphologically different ancestral species, which gives them a relatively wide range of tolerance of diverse ecological conditions.

The final decision as to the correctness of one or the other of these hypotheses, as well as to the validity of the writer's species concepts insofar as they differ from those of Mr. Stern, cannot be made through any attempt to improve on Mr. Stern's fine monographic study by means of examining further the herbarium specimens and garden plants now available to us. Careful studies are needed of the critical species as they grow in nature, and the splendid series of interspecific hybrids produced by Dr. A. P. Saunders needs to be increased and studied more carefully. Unfortunately the present state of the world makes both of these types of studies seem like remote ideals rather than actualities for the immediate future. Such parts of the globe as Dalmatia, Greece, Syria, and the Caucasus are considered by most people at present to be critical areas for very different reasons from the fact that those regions will yield important information about the relationship of *Paeonia* species. And the years of labor and devotion expended by Dr. Saunders on his beautiful creations are a scarce commodity in this age of fear, hurry, and utilitarianism. But peonies have existed on this earth for many millions of years, and they will still be with us when the world settles down to a more normal way of living. And when that time comes, Mr. Stern's "study" may be looked upon as one of the outstanding achievements of the present period in the history of plant science.—G. L. STEBBINS, JR., University of California, Berkeley, California.

NOTES AND NEWS

RANGE EXTENSIONS OF GRASSES INTO COLORADO.¹ In connection with the preparation of a flora of Colorado many plants not listed for the state in the various manuals and monographs have come to light. Among these unrecorded plants are 32 grass species.

Because of the great economic importance of the grass family in this region, and because, as far as can be ascertained, the majority of these grasses are a part of the actual flora of the state, it was considered worth while to put them on record, together with the herbaria wherein the specimens are deposited. The following abbreviations are used: University of Colorado (CU); Colorado Agricultural and Mechanical College (CA); Colorado College (CC); United States Forest Service, Regional Office, Denver (FS); Rocky Mountain Forest and Range Experiment Station, Fort Collins (FES); private herbarium of Paul Ginter, Fort Collins (G); Soil Conservation Service, maintained by the Department of Range and Pasture Management, Colorado Agricultural and Mechanical College (SS); United States National

¹ Scientific Series Paper 216, Colorado Agricultural Experiment Station.

Museum (US); Rocky Mountain Herbarium, University of Wyoming (W).

I. Casual, perhaps cultivated, introductions:

1. *Anthoxanthum odoratum* L., CC, SS.
2. *Brachypodium distachyon* (L.) Beauv., CU.
3. *Bromus catharticus* Vahl., CA, W.
4. *Cynodon Dactylon* (L.) Pers. CA.
5. *Cynosurus cristatus* L., CC, SS.
6. *Eleusine indica* (L.) Gaertn., CA, FS.
8. *Muhlenbergia Schreberi* Gmel., CA.
9. *Paspalum racemosum* L., CU.
10. *Poa trivialis* L., CU.
11. *Zizania aquatica* var. *angustifolia* Hitchc., CC.

II. Native or well established grasses:

1. *Agropyron latiglume* (S. & S.) Rydb., FS.
2. *Aristida Curtissii* (A. Gray) Nash, CA.
3. *Aristida purpurea* Nutt., W.
4. *Bouteloua barbata* Lag., CA.
5. *Calamagrostis montanensis* (Scribn.) Scribn., CA.
6. *Calamovilfa gigantea* (Nutt.) Scribn. & Merr., CA, CC, FES, SS.
7. *Danthonia unispicata* (Thurb.) Munro, CA.
8. *Elymus salina* Jones, US.
9. *Eragrostis Barrelieri* Daveau., CA, SS.
10. *Eragrostis trichodes* (Nutt.) Wood, CA.
11. *Eriochloa contracta* Hitchc., CA, CU.
12. *Muhlenbergia arenacea* (Buckl.) Hitchc., CA.
13. *Panicum huachucae* Ashe, CA.
14. *Panicum Wilcoxianum* Vasey, FS, G.
15. *Paspalum stramineum* Nash, CA, W.
16. *Poa bulbosa* L., CA, FS, W.
17. *Poa scabrella* (Thurb.) Benth., CU.
18. *Sorghum halepense* (L.) Pers., CA.
19. *Sporobolus heterolepis* (Gray) Gray, CU, CA, SS, CC.
20. *Sporobolus neglectus* Nash, CA.
21. *Stipa spartea* Trin., CA, CC, W.

None of the above 32 grasses has been previously directly recorded for Colorado in the knowledge of the writer. All specimens considered doubtful were sent to the United States National Museum for determination.—H. D. HARRINGTON, Department of Botany and Plant Pathology, Colorado Agricultural and Mechanical College, Fort Collins, Colorado.